

ABSTRACT

Disclosed is a method for manufacturing a catalytic oxide anode using high temperature sintering, which can increase a decomposition efficiency of an organic substance by improving a performance of the catalytic oxide anode (Ru oxide anode, Ir oxide anode) used in a water treatment, and in particular, to a method for manufacturing a catalytic oxide anode, in which the oxide anode is sintered at 600°C or higher, and a TiO₂-screening layer is formed between a titanium base metal and a catalytic oxide layer to prevent a lowering of the oxide anode activity owing to an oxidation of the titanium base metal caused by sintering the oxide anode at high temperature and a solid diffusion of an oxide into an anode surface. The method for manufacturing the catalytic oxide anode is characterized in that the titanium base metal is etched with hydrochloric acid, followed by being coated with a solution of RuCl₃ or chlorides of IrO₃ in hydrochloric acid according to a brushing or dipping method, and then the resulting material is dried at 60°C for 10 min, thermally treated at 250 to 350°C for 10 min, and finally sintered at 600 to 700°C for 1 to 2 hours.

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